

# DIODE HAVING A DOUBLE IMPLANTED GUARD RING

## ABSTRACT OF THE DISCLOSURE

The present invention provides a diode 200 that includes a substrate 215 doped with a first type dopant and a double implanted guard ring 245 located within the substrate and doped with a second type dopant opposite the first type dopant and having a first doped profile region 245a and a second doped profile region 245b. The present invention also includes a method of manufacturing this diode and an integrated circuit that utilizes this diode 200 within a CMOS and bipolar transistor integrated circuit 600.